DI GLERIA, Janos; BARTFAY, Tiborne

Growth development in tomato plants as affected by auxins and
microelements. Agrokem talajtan 12 no.3:343-350 0 '63.

1. Magyar Tudomanyos Akademia Talajtani es Agrokemiai Kutato Intezete,
Budapest. 2. "Agrokemia es Talajtan" szerkeszto bizottsagi tagja
(for di Gleria).

DI GLERIA, J.

"A history of soil research in Hungary up to 1944" by R. Balleneger, I. Finaly. Reviewed by J. Di Gleria. Acta agronom Hung 12 no. 3/4:372 '63.

1. Mitglied, Redaktionskollegium, "Acta Agronomica Academiae Scientiarum Hungaricae."

DIGEMTEI, A. L.

696. Alkogolism-vrednyy perezhitok. Makhachkala, 1954. 11s. 19cm. (D-vo pro-reveshcheniya Digest. ASSR. Resp. dom san. prosveshcheniya). 1,100 ekz. B. ts.--(54-54590). 1381 + 392

SO: Knizhnaya letopis, Vol. 1, 1955

5.3300

SOV/80-33-3-37/47

AUTHORS: Digonskiy, V. V., Krylov, V. N.

TITLE: Concerning Graphite Formation

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 3, pp 723-729 (USSR)

ABSTRACT: This is a discussion on the forms in which pure carbon is obtained in pyrolytic reactions. The thermal decomposition of hydrocarbons of type C_nH_{2n} or C_nH_{2n+2} does not yield pure carbon, but yields instead a high carbon content hydrocarbon C_nH_m, where m is as small as desired. Single graphite layers exist only at high temperatures; under normal conditions graphite may be represented by joined stacked layers consisting of hexagonal crystals which are the stable form of graphite under various conditions of its formation. A formula was established to determine the mean diameter of graphite crystals in carbon compound, depending on the percent content of hydrogen and carbon:

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Concerning Graphite Formation

78236
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$$d = \sqrt{\frac{4KS}{\pi}} \; .$$

where $K = 1 + 3n(n-1)$; $n = C/H$ (in %); S is the surface of a single hexagonal "benzene ring" of the graphite layer and equals, according to X-ray analysis, 5.217 square A. For acetylene black, containing about 1% hydrogen, $n = 8$; hence, $K = 169$, and $d = 33.5$ A, which roughly approximates the result of direct X-ray measurements (21 A). There are 2 figures; and 4 Soviet references.

SUBMITTED: May 22, 1959

Card 2/2

AUTHORS: Digonskiy, V. V., Krylov, V. N.

TITLE: The Vectorial Character of the Properties of Industrial Graphitized Articles Caused by the Electromagnetic Field of a Graphitizing Furnace

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 7, pp. 1530-1538

TEXT: The effect of an electromagnetic field on the quality of electrodes during graphitization was proved. The magnetic susceptibility of natural graphite in the direction perpendicular to the hexagonal lattices is under normal conditions $-21.5 \cdot 10^{-6}$, but in the direction parallel to the hexagonal lattices it is $-0.5 \cdot 10^{-6}$, i. e., 43 times greater. The magnetic susceptibility of industrial articles of graphite was investigated in three mutually-perpendicular directions: lengthwise, vertically and across. Test samples 10x10x100 mm were cut from graphitized articles with an accuracy of ± 0.5 mm. The magnetochemical analysis of anisotropic substances in a non-homogeneous electromagnetic field was carried out here for the first time. It was shown that the highest value of magnetic susceptibility corresponds to the vertical

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S/080/60/033/007/006/020
A003/A001

**The Vectorial Character of the Properties of Industrial Graphitized Articles
Caused by the Electromagnetic Field of a Graphitizing Furnace**

direction of the item to be graphitized. The cross direction has the lowest
value of susceptibility. The electric conductivity of the samples in the
directions mentioned was also investigated. The resistance of graphite was
measured within the temperature range from 25-$1,400°C$. The samples were heated
in a laboratory high-frequency furnace of МВТ-3М (MVP-3M) type. Already at
a temperature of $25°C$ the electric conductivity of graphite rods in vertical
direction is by 15% higher than that in cross direction. At temperatures above
$500°C$ the electric conductivity in the vertical direction increases, whereas in
the other two directions it decreases. A high-temperature roentgen-structural
analysis of the samples was carried out in order to elucidate the effect of the
temperature on the vectorial character of the properties in the graphitized
samples. The results of the analysis are discussed. It is pointed out that
the leads in new furnaces to be designed should be arranged in such a way that
the samples are in a vertical position during graphitization. If the quality
of the samples can be kept at the same level, the change of the leads arrangement
makes it possible to reduce the consumption of electric energy considerably.

Card 2/3

S/080/60/033/007/006/020
A003/A001

The Vectorial Character of the Properties of Industrial Graphitized Articles
Caused by the Electromagnetic Field of a Graphitizing Furnace

The effect of the electromagnetic field on the quality is the higher, the
higher the power of the graphitizing furnaces. There are 4 diagrams, 1 graph,
1 photograph, 1 table and 9 references: 8 Soviet and 1 English.

SUBMITTED: December 19, 1959

Card 3/3

15.2250

25650
S/080/60/033/012/003/024
D209/D305

AUTHORS: Digonskiy, V.V., and Krylov, V.N.

TILE: The character of interplannar bonds in graphite and
            their dependence on temperature

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 12, 1960,
            2638 - 2643

TEXT: In their earlier work the authors described the graphite
lattice as a polyvalent radical, whose existence was found possible
at high temperatures. They also showed that, on cooling, an asso-
ciation of radicals occurred with the formation of chemical bonds
resulting from the unsatisfied valencies of carbon atoms in the
adjacent graphite layers. Since such a theory of graphite crystal
formation has not been accepted, the authors found it necessary to
continue the investigations to prove the existence of chemical
bonding between carbon atoms of the adjacent layers. It is known
that the conductivity of metals, having a characteristic metallic

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The character of interplannar ...   D209/D305

bonding between atoms, decreases as the temperate increases. In
the case of graphite the conductivity along the layers increases
with increasing temperature. This fact may be explained by the rup-
ture of the interplannar chemical bonds, thereby liberating the va-
lency electrons and increasing the number of current carriers (con-
ductivity electrons) The common representations of space lattice
of graphite give no indication of chemical bonding between carbon
atoms of the adjacent layers. This, according to the authors should
be rectified. In Figs. 1 and 2 the structures of graphites I and
II are represente as they should be when chemical bonding is pre-
sent. It is known that both artificial and natural graphites con-
tain 80 % of structure I and 14 % of structure II, e remaining
6 % being some other structure. The main difference between gra-
phites I and II is that in the crystal of graphite II, the latti-
ces are repated every two layers and the graphite I every other
layer In graphite I carbon atoms between adjacent layers are che-
mically bonded, the distance between them being 3.35 Å. The bonds
alternate in such a manner that a carbon atomin any lattice is bon-
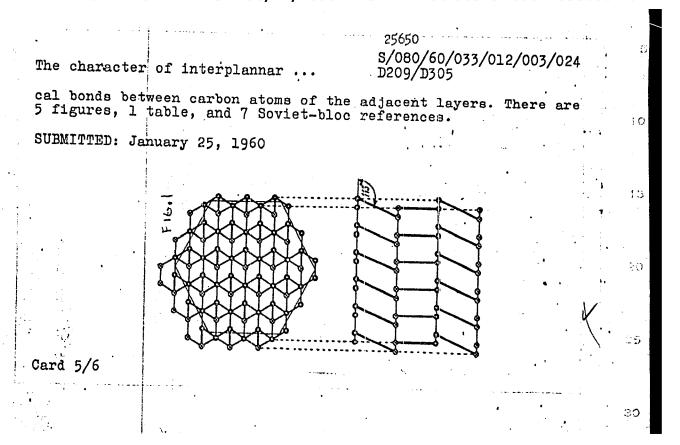
Card 2/6

The character of interplannar ...
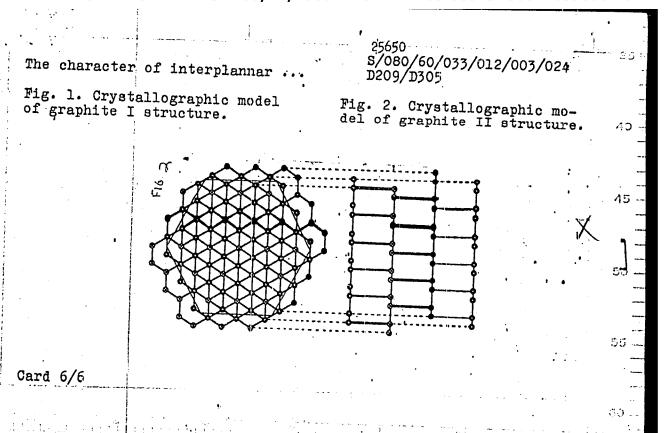
25650
S/080/60/033/012/003/024
D209/D305

ded through one bond with a carbon atom of the upper and the lower
layers. The direction of the four valency bonds of each carbon
atom are characterized by the angles between the bonds, being
equal to 120°, 120°, 120°, 90°, 90°, 90°. The structure of graphite
II on the other hand resembles that of diamond if the latter is
examined along one of the diagonals of its unit cell. The distribu-
tion of interplannar chemical bonds in graphite is assumed to al-
ternate at an angle of 113°. Only under such conditions can the
valency of carbon be equal to 4. The length of interplannar valen-
cy bond, at an angle of 113°C, is 3.63 Å and the valency angles in
that layers are equal to 120°, 120°, 120°, 113°, 83°, 83°. Although
chemical bonds of 3.35 and 3.63 Å are not found in any of the
examined hydrocarbons the authors still maintain the bond is chemi-
cal, although a very weak one. In the second part of their work
the authors provide the results of high temperature X-ray analysis
of an artificial graphite mark EG-0 characterized by the resistivi-
ty of $p = 9.3 \cdot 10^{-4} \Omega$. The results are tabulated. The data was ob-
tained by using 1 x 15 x 5 mm graphite specimen which was subjected

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The character of interplannar ...   D209/D305

to x-rays at temperatures of 25 - 700°C. The changes of parameter "C" were determined by measuring the decrease of diameter of the 002 diffraction ring with increasing temperature. The results showed that in the above temperature range "C" increases by 3.0 %, while according to calculated values (using the coefficient of linear expansion of graphite) it should only increase by 0.5 %. It may be concluded, therefore, that the increase of the parameter "C" occurs as a result of compression of the graphite crystals. This compression also explains the fact that the mechanical strength of graphite increases with temperature, up to 2500°C. The above is confirmed in A.Kh. Breger and G.S. Zhdanov (Ref. 7: DAN SSSR, 28, 1940), who determined the electron density in graphite along a normal to the 001 plane. According to their results, 15 - 16 % of the total electron density is found between the layers which corresponded to one electron per each carbon atom in the graphite. The continuity of electron density distribution between the layers, as shown graphically by the above authors, shows an overlap of the electron clouds and, therefore, proves the existence of the chemi-

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The character of interplannar ...

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D209/D305

cal bonds between carbon atoms of the adjacent layers. There are 5 figures, 1 table, and 7 Soviet-bloc references.

SUBMITTED: January 25, 1960

Card 5/6

The character of interplannar ...

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S/080/60/033/012/003/024
D209/D305

Fig. 1. Crystallographic model of graphite I structure.

Fig. 2. Crystallographic model of graphite II structure.

Card 6/6

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Cand Tech Sci - (diss) "Effect of an electromagnetic field of a
graphitizing furnance on the formation of structure of carbon
items in the process of graphitizing them." Leningrad, 1961.
16 pp; (Ministry of Higher and Secondary Specialist Education
RSFSR, Leningrad State Order of Lenin and Labor Red Banner
Mining Inst imeni G. V. Plekhanov); 150 copies;price not given;
(KL, 5-61 sup, 189)

DIGOYEV, S.

Role of the bank in the development of the Kirghiz economy. Den. i
kred. 16 no.2:30-34 F '58.   (MIRA 11:3)
                    (Kirghizistan--Banks and banking)

DIGOYEV, Soslanbek Dzakhayevich; ZHAZHIYEV, S.M., red.

[Technical progress and bank credit in the industry of
Kirghizistan] Tekhnicheskii progress i bankovskii kredit
v promyshlennosti Kirgizii. Frunze, Kirgizgosizdat, 1964.
45 p.   (MIRA 18:3)

KAMNEVA, A. I.; MUZYCHENKO, L. A.; DIGUROV, N. G.

Preparation of phthalic anhydride by the liquid phase oxidation of o-xylene. Neftekhimia 2 no.4:524-530 Jl-Ag '62.
(MIRA 15:10)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D. I. Mendeleyeva.

(Phthalic anhydride)   (Xylene)

DIGUROVA, T. M.

42139 DIGUROVA, T. M. K voposu o stroyenii atmosfery i o protsessakh v oblastyakh sloya
F. zhurnal zksperia. i teoret. Fiziki, 1948, Vyp. 11, c995-1011.--
Bibliogr: c.1011.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

DIGUROVA, T. M.   260T54

USSR/Geology - Bitumens   11 Jun 53

"Some Criteria for Judging the Authigenicity
or the Allothigenicity of Dispersed Bitumens,"
Sh. F. Mekhtiyev and T. M. Digurova, Inst of
Geol im Gubkin, Acad Sci Az SSR

DAN SSSR, Vol 90, No 5, pp 861-863

On the basis of study conducted in the Caucasus,
the author gives six specific characteristics
of dispersed bitumens. Defines authigeneous
bitumens as those produced in a given layer or
formed in clays and subsequently mixed with
sandy rocks of the same layer. Presented by
Acad S. I. Mirinov 20 Apr 53.   260T54

MEKHTIYEV,Sh.F.; DIGUROVA,T.M.; TAMRAZYAN,G.P.

On the regularity of distribution of bitumens in the lower formation
of the productive stratum in Apsheron Province. Izv. AN Azerb. SSR
no.9:23-32 S'54.   (MLRA 8:11)
        (Apsheron Peninsula--Petroleum geology)

MEKHTIYEV, Sh.F.; DIGUROVA, T.M.

Data on the bituminosity of certain complexes in Azerbaijanian
deposits. Trudy Inst.geol.AN Azerb.SSR 15:73-134 '54 (MLRA 9:1)
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DIGUROVA, T.M.

An experiment illustrating changes occurring in the mineral content
of waters associated with petroleum. Dokl.AN Azerb.SSR 13 no.10:1087-1090
'57.   (MIRA 10:12)

1. Predstavleno akademikom AN AzerSSR M.V.Abramovichem.
                    (Apsheron Peninsula--Water, Underground)

MEKHTIYEV, Sh.F.; DIGUROVA, T.M.; POTAPOVA, V.I.; ABRAMOVICH, M.V., red.;
VASILEVSKIY, Ya.B., red.izd-va; AGAYEVA, Sh.A., tekhn.red.

[Organic components of sedimentary rocks in Azerbaijan] Orga-
nicheskie komponenty osadochnykh porod Azerbaidzhana. Baku,
Izd-vo Akad.nauk Azerbaidzhanskoi SSR, 1958. 265 p.   (MIRA 12:6)
(Azerbaijan--Rocks, Sedimentary) (Organic matter)

DIGUROVA, T.M.

Highly mineralized formation waters in the lower part of the Balakhan' producing area. Izv.AN Azerb.SSR. Ser.geol.-geog. nauk no.2:59-65 '58.   (MIRA 11:12)
       (Apsheron Peninsula--Oil field brines)

PASHALY, N.V.; DIGUROVA, T.M.

Distribution of organic matter in Quaternary sediments of the Mis-
hovdag exploratory area. Azerb.neft.khoz. 37 no.12:8-10 D '58.
(MIRA 12:3)
(Kura Lowland--Organic matter)

DICHLIEV, B. [Dihliev, B.], candidut des sciences medicales

2 cases of Hashimoto's lymphomatous goiter. Folia med.(Plovdiv)
7 no.1:76-78 '65

1. Institut de Hautes Etudes Medicales "I.P.Pavlov" de Plovdiv,
Bulgarie, Chaire de Chirurgie de Faculte avec Urologie (Direc-
teur: prof. J. Dobrev, cand.des sciences medicales).

DIHNE, A.M. [Dykhne, A.M.]; RUMER, I.B.

        Thermodynamics of the Ising-Onsager plane dipole lattice.
        Analele mat 16 no.2:147-164 Ap-Je '62.

DIHORU, G.

Emil Pop's Mlastinile de turba din Republica Populara Romina (Peat
bogs of the Rumanian People's Republic); a book review. Rev biol 5
no.4:395-397 '60.   (EEAI 10:9)

(Pop, Emil)   (Peat bogs)

DONITSE, N. [Donita, N.]; DIKHORU, G. [Dihoru, G.]

Comparative data on two associations of the white willow
in the valley of the Danube River. Rev biol 6 no.4:383-390
'61.

1. Institut biologii im. Tr. Sevulesku, Laboratoriia
geobotaniki i ekologii.

DIHORU, Gh.

I. Prodan and A. Buia's Flora mica ilustrata a R.P.R. (Rumania's
Small Illustrated Flora); a book review. Studii cerc.biol.veget.
11 no.4:443 '59.   (EEAI 9:5)
        (Prodan, Iuliu)   (Buia, Alexandru)   (Rumania--Flora)

PAUKE, A. [Pauca, A.]; DIKHORU, G. [Dihoru, Gh.]; DONITSE, N. [Donita, N.]

Elements of the flora of Babadag region. Rev biol 7 no.3:309-323
'62.

1. Institut biologii im. Tr. Sevulesku Akademii RNR, Laboratoriya
geobotaniki.

DONITA, N.; DIHORU, Gh.

Cartography of forest vegetation in the Babadag region. Rev biol
7 no.3:369-379 '62.

1. Institut de biologie "Traian Savulescu", Laboratoire de
geobotanique.

SANDA, V.; DIHORU, Gh.

Contributions to the knowledge of Dobruja flora. Comunicarile
AR 12 no.11:1179-1184 N '62.

1. Comunicare prezentata de C.C.Georgescu, membru corespondent
al Academiei R.P.R.

DIHORU, Gh. (Bucuresti)

Island of beech trees in Dobruja. Natura Biologie 14 no.3:49-52 My-Je '62.

DIHORU, Gh. (Bucuresti)

Conference on the methods in geobotanical laboratory research, May 21-22, 1962. Natura Biologie 16 no.4:87-88 Jl-Ag '62.

CONSTANTINESCU, O.; DIHORU, Gh.

Contribution to the knoledge of Rumanian microflora. Comunicarile
Ar 13 no.10:885-890 O '63.

1. Comunicare prezentata de academician Alice Savulescu.

GEORGESCU, C.C.; DIHORU,Gh.; CIOBANU, I.R.

Taxonomic considerations on some Quercus species in the
herbarium of the Museum of Natural History in Budapest.
Studii cerc biol veget 15 no.4:433-452 '63.

1. Membru corespondent al Academiei R.P.R. (for Georgescu)

DIHORU, Gh.

Geobotanical characterization of the Penteleu forest
reservations. Studii cerc biol s. bot 16 no.5:387-400 '64.

1. Laboratory of Geobotany and Ecology, "Traian Savulescu"
Institute of Biology.

DIHORU, Gh. (Bucuresti)

Botanical lines in the Babadag Plateau.   Natura Biologie 16
no.3:66-70   My-Je '64.

CONSTANTINESCU, O.; JIHORU, Gh. (Bucuresti)

Mycologic news on Hungarian flora. Natura Biologie 16
no.3:86-87 My-Je '64.

DIHORU, Gh.

Vegetation of the Lacu' iintra Pietre in the Buzaului
Mountains with special regard to the Calamagrostis lanceolata
association. Studii cerc biol s. bot 17 no.1:35-44 '64.

1. Laboratory of Geobotany, "Traian Savulescu" Institute of
Biology. Submitted April 8, 1964.

DIHOS, Ernest

        Stress effect of labor. Cas. lek. cesk. 95 no.28-29:781-784
        13 July 56.

        1. Z por.-gyn- oddelenia OUNZ v Martine, predn. doc. Dr. E. Dlhos.
           (LABOR, physiology,
                stress (Cz))
           (STRESS,
                in labor (Cz))

DIHOS, E.

Analysis of the clinical course of 20 cases of amniotic fluid
embolism with fatal outcome. Cesk. gyn. 28 no.1/2:44-48 F '63.

1. SUDL v Trencine.
                (EMBOLISM AMNIOTIC FLUID)   (OXYTOCIN)
                    (MATERNAL MORTALITY)

DIHOS, E

SURNAME (in caps); Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: ZOUNZ Martin /Abbreviation not identified/

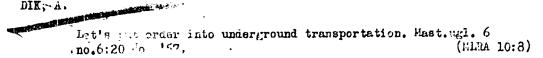Source: Bratislava, Lekarsky Obzor, Vol X, No 7, 1961, pp 421-426

Data: "Causes of Hemorrhage in Climacteric and Menopause."

/21/

DIJMARESCU, A. (Eng.)

SURUCU (in caps): Given Names

Country: Rumania

Academic Degrees: Dr.

Affiliation: [not given]

Source: Bucharest, *Igiena*, No 3, Jul-Aug 61, pp 279-280.

Data: "Investigations Concerning the Determination of Bacteriological Qualition of Surface Waters as a Source for Supplying Central Stations."

Co-authors:

POPESCU, V., Dr.   [Affiliations not given]
DIJMARESCU, A., Engineer.

LETU, N.; TEODORESCU, C.; DIJMARESCU, I.; HIRIAN, C.; FAUR, Elvira

Study of the specific consumption of explosive at the
Barza mine. Rev min 14 no.12:550-556 D'63.

DIK;-A.

Let's put order into underground transportation. Mast.ugl. 6
.no.6:20 Je '57.   (MLRA 10:8)

1.Nachal'nik uchastka vnutrishakhtnogo transporta shakhty
No.204 tresta Kopeyskugol'.
                              (Mine railroads)

Dik, E. P.

AID P - 4424

Subject   : USSR/Heat Engineering

Card 1/1   Pub. 110-a - 4/13

Author   : Przhiyalkovskiy, M. M., Kand. Tech. Sci., and E. P. Dik, Eng. All-Union Heat Engineering Institute.

Title   : Heat load distribution in a boiler with a fuel-oil (mazut) flame.

Periodical : Teploenergetika, 6, 26-31, Je 1956

Abstract   : Research made on heat length- and sidewise distribution in a TM-200 boiler furnace with an oil flame and a frontal placement of burners is discussed. Tests proved the heat distribution to be uneven. Tables give detailed data on heat distribution by sections. Ten diagrams.

Institution : None

Submitted   : No date

FILIMONOV, A.I., kandidat tekhnicheskikh nauk; PRZHIYALKOVSKIY, M.M.,
kandidat tekhnicheskikh nauk; DIK, E.P., inzhener; PETROVA, I.N.,
inzhener.

Specific driving pressures in pipes with descending level at a
steam loading of 17 to 180 atm [with summary in English]. Teplo-
energetika 4 no.10:22-26 O '57.   (MIRA 10:9)

1. Vsesoyuznyy teplotekhnicheskiy institut.
                        (Boilers)

DIK, E. P

PRZHIYALKOVSKIY, M.M., kand. tekhn. nauk; DIK, E.P., inzh.; ZHUCHKOV, V.P.,
inzh.

An experimental investigation of unstable conditions of water circu-
lation. Teploenergetika 4 no.12:21-24 D '57.   (MIRA 10:11)

1. Vsesoyuznyy teplotekhnicheskiy institut.
                                    (Feed water)

ANTONOV, A.Ya., insh.; DIK, B.P., insh.

Design of outdoor power plants and experience in the operation
in the USA. Teploenergetika 6 no.1:85-87 Ja '59.
(MIRA 12:1)

(United States--Electric power plants)

W ..

SOV/96-59-7-15/26

AUTHORS: Filimonov, A.I., Candidate of Technical Sciences, and
             Dik, E.P., Engineer

TITLE: The Influence of Mass Exchange on the Formation of Deposits
             from Steam Solutions   (Vliyaniye massoobmena na obrazovaniye
             otlozheniy iz parovykh rastvorov)

PERIODICAL: Teploenergetika, 1959, Nr 7, pp 69-74 (USSR)

ABSTRACT: The process of deposit formation in once-through boilers
             and turbines depends on the conditions. In the wet steam
             zones the substance is precipitated because the aqueous
             solution is evaporated to the concentration of saturation.
             In the super-heater and turbine, small particles of sub-
             stances, which are already present, become coagulated, and
             substances dissolved in the steam crystallise out. Because
             of increase in steam conditions, and improvements in the
             quantity of feed-water and steam, a greater proportion of
             the total contamination is dissolved in the steam. It is,
             therefore, of great practical interest to study the
             crystallisation of substances from a single-phase steam
Card 1/7   solution in super-heater tubes and turbines. Simple

The Influence of Mass Exchange on the Formation of Deposits from
Steam Solutions

equations of crystallisation are formulated and it is shown
that the rate of crystallisation may depend on diffusion
or kinetic factors. In aqueous solutions both these factors
may play a part, but the conditions of crystallisation of
substances from steam solution are somewhat different.
Precipitation from steam occurs at much higher temperatures
than are usually encountered in aqueous solutions. At the
higher temperatures the reactions are much faster and it
may be supposed that the rate of crystallisation of sub-
stances from steam depends on mass exchange and not on
kinetic processes. Moreover, molecules dissolved in steam
are much less closely linked with the molecules of solvent
than are ions in aqueous solutions. This also suggests that
the kinetic part of the process occurs very rapidly during
crystallisation from steam solutions. Accordingly, the
equation for the quantity of substance precipitated assumes
the form of equation (6), where β is the mass-transfer
coefficient. The case of precipitation in a heated tube is
Card 2/7 then considered. Investigations on the solubility of sub-

SOV/96-59-7-15/26

The Influence of Mass Exchange on the Formation of Deposits from
Steam Solutions

       stances in steam have established that for many of them
the nature of the solubility isobar is much the same. As
the steam temperature rises, the solubility of the substance
diminishes, reaches a minimum, and then begins to rise again,
as shown in Figure 1. It is then shown that precipitate
can form on the walls of a heated tube because it is at a
higher temperature than the steam flowing through it, so
that the steam in direct contact with the tube walls becomes
super-saturated. The rate of deposit formation is given
by expression (14). The analogy between the processes of
mass- and heat-transfer may be used to determine the mass-
transfer coefficient. Expression (16) is then derived for
the coefficient. It is difficult to use this formula because
there is no experimental data or reliable method of calcul-
ating the coefficient of diffusion of substance in steam,
However, for super-heated steam the diffusion and thermal
Prandtl criteria differ by not more than a factor of two.
Card 3/7   Expression (18) is then derived for the crystallisation

The Influence of Mass Exchange on the Formation of Deposits from
Steam Solutions

head' and can be used, together with equation (13), to
derive the salt content of the steam. The above equations
are only valid if the substance does not crystallise in the
volume of the steam. The conditions under which this
requirement is fulfilled are then examined. Certain sim-
plifying assumptions are made for this case and then
expression (21) is derived as a particular solution of
differential equation (18). According to formula (21),
after crystallisation from the steam has started its salt
content tends towards a straight line, as shown in Figure
3a; this is a graph of change of concentration of substance
in the steam over the length of the heated tube. A simple
criterion of the possibility of crystallisation of substance
in the flow of steam is then derived. The relationship
between the salt content of the steam and that of the feed-
water is then considered. The examination of the problem
is based on the simplified equation (21). Equation (23)
is derived for the relationship and it is plotted in Figure
Card 4/7   4. Figure 5 shows curves of the relationship between the

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quantity of substance precipitated from a kilogram of steam and the concentration of the substance in the feed-water. The curves indicate that the amount of substance precipit- ated depends not only on the solubility in the steam but on a number of other factors. The deposition of substances on steam turbine blading is then considered. When steam expands in a turbine the solubility of substances in it decrease sharply. As soon as the solubility becomes less than the concentration of substance in the steam the sol- ution becomes super-saturated and crystallisation occurs. Unlike the case of a heated tube, where conditions favour- ing crystallisation occur only at the hot tube surface, in a turbine the whole body of steam is super-saturated, hence crystallisation could occur either on the surface or in the steam. In practice, crystallisation in the steam may be neglected both because the amount of salt is small and because it passes through the turbine very quickly. The amount of substance crystallising per unit time on the turbine blading is proportional to the coefficient of mass

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transfer, to the surface area of the blades and nozzles
and to the 'crystallisation head', that is, the difference
between the concentration of substance in the steam and
its solubility under the given conditions. The conditions
of crystallisation are likely to be very different in diff-
erent stages of the turbine and it is, therefore, advisable
to consider them for each stage in turn and to summate the
results, as in equation (24). The conditions of deposit
formation are then discussed. Although on straightforward
theoretical grounds crystallisation would be expected to
occur all over the blading, in fact deposits form mainly
on the back of the blades where they are less likely to be
washed off by the moving steam. Moreover, deposits are
likely to be removed by vibration of the blading. Thus,
the amount of deposit actually crystallising on the blades
may be very much greater than the amount that remains there.
It is considered possible that the effect of super-saturat-
ion of steam solutions might be used to extract substances
Card 6/7   from the cycle. In particular, it is of interest to know

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The Influence of Mass Exchange on the Formation of Deposits from Steam Solutions

how much salt crystallisation can occur in the duct between the high- and low-pressure cylinders, because this would remove salt from the cycle.
There are 5 figures and 5 Soviet references.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut (All-Union Thermo-Technical Institute)

Card 7/7

DIK, E.P., inzh.; PANASENKO, M.D., kand.tekhn.nauk

Method for calculating the duration between rinsing intervals
in boilers with supercritical pressure. Elek. sta. 33 no.10:
17-19 O '62.   (MIRA 16:1)
                (Boilers)   (Feed water)

DIK, E.P., inzh.

Method for calculating the deposits in transitory zone of boilers
with supercritical parameters. Energomashinostroenie 9 no.9:
35-38 S '63.   (MIRA 16:10)

SHVARTS, A.L., kand.tekhn.nauk; DIK, E.P., inzh.; DUDNIKOVA, I.P., inzh.;
        NADYROV, I., inzh.

Study of transient processes in a once-through type boiler with super-
critical parameters. Teploenergetika 10 no.4:35-41 Ap '63.

                                                    (MIRA 16:3)

1. Vsesoyuznyy teplotekhnicheskiy institut.
                    (Boilers)

DIK, E.P., inzh.; NADYROV, I.I., inzh.; MAN'KINA, N.N., kand.tekhn.nauk

Study of the zone and magnitude of deposits in a boiler with
supercritical parameters. Teploenergetila 11 no. 1:45-49 Ja '64.
(MIRA 17:5)

1. Vsesoyuznyy teplotekhnicheskiy institut.

DIK, I.

Work of the cleaning trust in Omsk. Zhil.-kom.khoz. 9 no.10:
25-26 '59.   (MIRA 13:2)

1. Starshiy inzhener Upravleniya kommunal'nykh predpriyatiy i
blagoustroystva g.Omska.
          (Omsk--Refuse and refuse disposal)

PRISHLYAK, V.Z.; KOBLAY, D.S.; DIK, I.I.; PUZIY, Ya.S.; YAREMENKO, I.A.;
KOLESNIK, G.K.; DEGERIN, E.R.; MEL'NIK, P.A.

From the editor's mail. Sakh.;prom. 36 no.9:68-70 S '62.
(MIRA 16:11)

1. Khodorovskiy sakharnyy kombinat (for Prishlyak). 2. Shpanov-
skiy sakharnyy zavod (for Koblay). 3. Kanevskiy sakharnyy zavod
Krasnodarskogo kraya (for Dik) 4. Korenovskiy sakharnyy zavod
Krasnodarskogo kraya (for Puziy). 5. Sumskoy sakharnyy trest (for
Yaremenko). 6. Leningradskiy sakharnyy zavod Krasnodarskogo kraya
(for Kolesnik). 7. Kurskiy sovet narodnogo khozyaystva (for Dege-
rin). 8. Zhdanovskiy sakharnyy zavod (for Mel'nik).

AUTHOR: Dik, I.M.

TITLE: The Origins of the Employment of Blast-furnace Gas (Nachalo
           ispol'zovaniya domennogo gaza)

PERIODICAL: Tr. In-ta istorii yestestvozn. i tekhn., 1957, Vol 9,
             pp 327-335

ABSTRACT: A historical survey. Utilization and employment of blast-
            furnace gas.

P.N.

Card 1/1

DIK, I.M.

Fuel balance in metallurgical plants of the Dnieper Valley group.
Izv. vys. ucheb. zav.; chern. met. 4 no.12:191-195 '61.
(MIRA 15:1)

1. Metallurgicheskiy zavod im. G.I.Petrovskogo.
(Dnieper Valley--Metallurgical plants--Equipment and supplies)

DIK, I.M.

Utilization of coke-oven gas in ferrous metallurgy plants in the Dnieper Valley. Koks i khim. no.1:54-56 '62.   (MIRA 15:2)

1. Dnepropetrovskiy metallurgicheskiy zavod.
              (Dnieper Valley—Coke-oven gas)

STRUVE, E.E.; DIK, I.P.; STARTSEV, G.S.; KERSTEN, I.O., inzhener,
   retsenzent; BUTAKOV, S.Ye., doktor tekhnicheskikh nauk, redaktor;
   DUGINA, N.A., tekhnicheskiy redaktor.

[Ventilators and pumps; methods of selecting and designing] Ven-
tiliatory i nasosy; metod podbora i proektirovaniia. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1955. 138 p. (MLRA 8:9)
      (Fans, Mechanical) (Pumping machinery)

DIK, I.P., inzhener.

Fan with an impactless blade inlet. TSvet.met.29 no.6:66-69 Je '56.
(Fans, Mechanical)

(MLRA 9:9)

DIK, I.P., inzhener.

    Centrifugal ventilator with vanes of double curvature. Teploenergeti-
ka 4 no.1:58-59 Ja ' 57.   (MLRA 10:3)
         (Fans, Mechanical)

DIK, K.G.

NEVYAZHSKAYA, Ye.A.; NIKULIN, N.Ya.; DIK, K.G.; SATANOVSKIY, P.L.

Improvement of gasification indices in gas producing plants.
Ogneupory 22 no.4:165-169 '57.

1. Uralenergochermet (for Nevyazhskaya and Nikulin). 2. Pervo-
ural'skiy dinasovyy zavod (for Dik and Satanovskiy).
(Coal gasification)   (Gas producers)

DIK, K.G.

MK, I..

Height adjustment of float control valve assembly. Khol. tekh., 29, No 1, 1952.

DIK, ...

Ways of developing techniques of production. Khol. tekh, 29, no 2, 1952.

DIK, M., inzhener.

How often should a change of lubricant be made in an ammonium compressor 4AY-15? Khol.tekh. 30 no.2:71 Ap-Je '53.   (MLRA 6:7)
(Compressors)

DIK, M., inzhener.

Introducing finned cooling devices in storage lockers. Khol.tekh.31
no.1:29-32 Ja-Mr '54.   (MLRA 7:4)

1. Moskovskiy kholodil'nik no.9.
        (Refrigeration and refrigerating machinery)

DIK, M., inzhener; GURAL'NIK, M., kandidat tekhnicheskikh nauk

Use of battery-operated trucks in the Moscow Cold Storage Warehouse No.9
Khol.tekh. 32 no.1:20-26 Ja-Mr '55.   (MLRA 8:7)
        (Fork lift trucks) (Moscow--Cold storage warehouses--Equipment
                                and supplies)

DIK, M. inzhener.

Tanks for storing ammonia. Khol.tekh. 33 no.3:62-64 Jl-S '56.
(Ammonia--Storage)   (MLRA 9:10)

DIK, M.,inzh.

Air separator for large refrigerating installations. Khol.tekh.
33 no.4:67-68 O-D '56.   (MIRA 12:1)
         (Refrigeration and refrigerating machinery)

AUTHOR: Dik, M. (Engineer)   66-2-15/22

TITLE: Raising the level of railway platforms in cold stores.
       (Pod"yem urovnya pola zheleznodorozhnykh
       platform kholodil'nika)'.

PERIODICAL: "Kholodil'naya Tekhnika" (Refrigeration Engineering)
            1957, No.2, pp. 67 - 68 (USSR)'.

ABSTRACT: The unloading platforms in the No.9 - cold store
          in Moscow were 1100 mm above the rail surface and were
          thereby up to 300 mm lower than the platform of the refrig-
          erated wagons. The measures are described which were
          effected in the single storey and the 5-storey building
          of this undertaking to raise the platforms so as to improve
          handling conditions. The effected changes enabled to in-
          crease the capacity of simultaneous loading and unloading
          from 8 to 16 wagons in the 5-storey building and from 4 to

Card 1/1 6 wagons in the single storey building. In addition, a
          600 m2 non-refrigerated storage building has been erected.
          (see photograph). There is 1 figure.

AVAILABLE:

DIK, M., inzh.

Improvements in the construction of overhead trolley conveyors.
Khol. tekh. 35 no. 3:56 My-Je '58.   (MIRA 11:7)
                    (Conveying machinery)
        (Packing houses--Equipment and supplies)

25(5)   SOV/66-59-5-13/35

AUTHOR: Dik, M., Engineer

TITLE: Improved System of Blocking the Discharge Valve of a Horizontal Compressor

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 5, pp 51-52 (USSR)

ABSTRACT: The author refers to an article in the Nr 3 issue (1952) of above periodical
               describing design of an electric blocking system of the discharge valve
               of a compressor in the Nr 9 Refrigeration Plant in Moscow. The principle
               of the operation is based on the work of a mercury cut-off switch. The
               existing system has now been improved following the suggestion of electri-
               cian V. Grekov, comprising an end-switch of the type BKTs-411 intended
               for a maximum tension of 500 v and 6 a.current. The article describes
               design and operation of the improved electric blocking system.
               There is one set of diagrams.

Card 1/1

KIREYEV, P.M.; LIFSHITS, G.I.; DIK, M.G.; BATRAKOV, V.I.; SLAVUTSKIY, N.I.,
     inzh.; FRID, N.Ya.; SUDOPLATOV, G.A.; FAL'KOVICH, Ya.D., starshiy
     tekhnolog

Worthy welcome to the 22d Congress of the CPSU. Khol. tekh. 38
no.4:5-13 Jl-Ag '61.   (MIRA 15:1)

1. Direktor Moskovskogo khladokombinata No.3 (for Kireyev).
2. Glavnyy inzh. Moskovskogo khladokombinata No.3 (for Lifshits).
3. Glavnyy inzh. Moskovskogo kholodil'nika No.9 (for Dik). 4. Glavnyy
inzh. Moskovskogo kholodil'nika No.10 (for Batrakov). 5. Glavnyy
inzh. Moskovskogo kholodil'nika No.12 (for Frid). 6. Direktor
Kiyevskogo kholodil'nika No.1 (for Sudoplatov).
                   (Refrigeration and refrigerating machinery)

DIK, M.G.

New building of the Moscow Cold Storage Plant No.9. Khol.
tekh. 38 no.6:40-44 N-D '61.   (MIRA 15:1)

1. Glavnyy inzh. Moskovskoge kholodil'nika No.9.
                   (Moscow--Cold storage warehouses)

DIK, M.G., inzh.

Dump body for EKP-750 electric industrial trucks. Khol.tekh. 39
no.2:40-42 Mr-Ap '62.   (MIRA 15:4)
                        (Industrial electric trucks)

DIK, M.G., inzh.

Safety device for railroad platforms of refrigerator cars.
Khol. tekh. 39 no.5:54-55 S-O '62.   (MIRA 16:7)

(Railroads—Safety appliances)
(Refrigerator cars)

DIK, M.G., inzh.

Mechanized production line for poultry sorting and weighing. Khol. tekh. 41 no.1:49-50 Ja-F '64.   (MIRA 17:3)

GURAL'NIK, Mikhail Isayevich; DIK, M.G., retsenzent; GINDLIN,
    I.M., retsenzent TSIFERSON, A.L., red.

[Mechanization of loading and unloading operations in
refrigerators] Mekhanizatsiia pogruzochno-razgruzhochnykh
rabot na kholodil'nikakh. Moskva, Pishchevaia promyshlen-
nost', 1965. 138 p.   (MIRA 18:10)

DIK, Mariya Ivanovna

[For high milk production] Za vysokie nadoi moloka. Alma-Ata,
Kazakhskoe gos. izd-vo, 1955. 15 p.   (MLRA 9:9)
        (Dairying)

DIK, N.

Moskva-Donbass gruzovaia zheleznodorozhnaia magistral'. /The Moscow-Donbas freight
main line/. (Bol. sov. ents., 1938, v. 40, col. 415-416).
                                         DLC: AE55.B6

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress
     Reference Department, Washington, 1952, Unclassified.

LIK, N. (L'vov).

Silk flowers. Prom.koop. no.8:33 Ag '57.   (MIRA 10:9)
(Artificial flowers)

DIK, N. E.

DIK, N. E..........Rel'ef Moskvy i Podmoskov'ia (Pod red. A.I. Solov'eva). Moskva,
    Geografgiz, 1949. 194 p.
        Bibliography: p. 189-(195)

                                        DLC: GB239.M6D5

SO: LC, Soviet Geography, Part II, 1951/Unclassified

1. DIK, N. Ye

2. USSR (600)

4. Reseroirs - Moscow Province

7. "Moscow sea." A. V. Havemann. Reviewed by N. Ye Dik, Sov. kniga no 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

BORZOV,A.A.; PETUKHOV, A.F.; GVOZDETSKIY, N.A., redaktor; DIK N.Ye.,
    redaktor; SOLOV'YEV, A.I., redaktor; TUSHINSKIY, G.K.; redaktor;
    KOSTINSKIY, D.N., redaktor; KOSHELEVA, S.M., tekhnicheskiy redaktor

[Geographical works] Geograficheskie raboty. 2-e, ispr. izd. Moskva,
Gos. izd-vo Geograf. lit-ry, 1954. 523 p.   (MIRA 8:4)
        (Physical geography) (Geography--Study and teaching)

USSR/Geology - Erosion

Card 1/1   Pub. 45 - 11/17

Authors   : Lidov, V. P.; Dik, N. Ye.; Nikolaevskiy, Ye. M.; Setunskaya, L. Ye.;
              and Khmelevaya, N. V.

Title   : Classification of recent linear forms of erosion

Periodical : Izv. AN SSSR. Ser. geog. 3, 91-99, May - Jun 1954

Abstract   : A study is made of the work of classifying forms of erosion along the
              following basic lines: establishing qualitative differences of the diff-
              erent types of forms depending on the intensity of the erosion processes,
              distinguishing between the types of forms in accordance with the stage
              of development in evolutionary sequence and showing the nature of the
              interacting processes on the bilges and slopes of the forms. Five USSR
              references (1950-1952). Tables.

Institution: .....

Submitted: .....

LIDOV, V.P.; DIK, N.Ye.; NIKOLAYEVSKAYA, Ye.M.; KHMELEVA, N.V.

Still more about boundaries of geographical regions. Izv.Vses.
geog.ob-va 86 no.1:57-66 Ja-F '54.   (MLRA 7:2)
                                                      (Geography)

DIK. N. Ye.

"Maps of Physioogeographic Regionalization in the Exposition of the Division on 'Physicogeographic Oblasts of the USSR'" Lomonsov Lectures in 1956, Vest. Mosk. U., Physico Math and Natural Sciences, 4, No. 6, pp 147-160, 1956 Museum of Geography

Translation U-3,054,363

DIK, N.Ye.

AVETISYAN, G.A.; DIK, N.Ye.; YERMAKOV, N.P.; YUSOV, B.V.; SHCHERBAKOV, D.I., akademik, otvetstvennyy red.; DOBRONRAVOVA, K.O., red.; KOSHELEVA, S.M., tekhn.red.

[Our homeland; an album of photographs] Nasha rodina; fotoal'bom. Moskva, Gos.izd-vo geogr.lit-ry, 1957. 309 p. [Parallel texts in Russian, German, English, and French] (MIRA 11:1)
(Russia--Views)

LIDOV, V.P.; DIK, N.Ye.; NIKOLAYEVSKAYA, Ye.M.; KHMELEVA, N.V.

Bottom gullies and their development; based on studies in
key areas of the right banks of the Don. Trudy Inst.lesa 44:
103-137 '59.   (MIRA 12:9)
            (Don Valley—Erosion)

DIK, N.Ye.

On M.V. Lomonosov's projected geographical expeditions. Vest.
Mosk.un.Ser.5: geog. 15 no.1:67-68 '60.   (MIRA 13:8)
        (Lomonosov, Mikhail Vasilevich, 1711-1765)
        (Geography--Study and teaching)